401 KAR 59:105. New process gas streams.

NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
Department for Environmental Protection
Division for Air Quality

Relates to: KRS Chapter 224
Pursuant to: KRS 13.082, 224.033
Necessity and Function: KRS 224.033 requires the Department for Natural Resources and Environmental Protection to prescribe regulations for the prevention, abatement, and control of air pollution. This regulation provides for the control of emissions from new process gas streams.

Section 1. Applicability.
The provisions of this regulation shall apply to each affected facility which means any process gas stream which:

(1) It is not elsewhere subject to a standard of performance within this chapter with respect to hydrogen sulfide, sulfur dioxide, or carbon monoxide;

(2) Commenced on or after the classification date defined below.

Section 2. Definitions.
As used in this regulation, all terms not defined herein shall have the meaning given them in 401 KAR 50:010.

(1) "Classification date" means the effective date of this regulation;

(2) "Process gas stream" means any gas stream emitted from any process including, but not limited to, petroleum refineries, by- product coke plants, gray iron cupolas, blast furnace, basic oxygen steel furnace and coal conversion plants, except process upset gas as defined in this section.

(3) "Process upset gas" means any gas generated by a process unit as a result of startup, shutdown, upset, or malfunction.

(4) "process unit" means any segment of the plant in which a specific processing operation is conducted.

Section 3. Standard for Hydrogen Sulfide.
No person shall cause, suffer, allow or permit the emission or combustion of hydrogen sulfide in a process gas stream to exceed ten (10) grains per 100 dscf (165 ppm by volume) at zero percent oxygen except that sources whose combined process gas stream emission rate totals less than two (2) tons per day of hydrogen sulfide shall reduce such emissions by eighty-five (85) percent.

Section 4. Standard for Sulfur Dioxide.
No person shall cause, suffer, allow or permit the emission of sulfur dioxide in a process gas stream to exceed 28.63 grains per 100 dscf (250 ppm by volume) at zero percent oxygen except that sources whose combined process gas stream emission rate totals less than four (4) tons per day of sulfur dioxide shall reduce such emissions by eighty-five (85) percent.

Section 5. Standard for Carbon Monoxide.
No person shall cause, suffer, allow or permit the emission of carbon monoxide in a process gas stream or a waste gas stream unless the gases are burned at 1,300 o F for 0.5 seconds or greater in a direct flame afterburner or equivalent device equipped with an indicating pyrometer which is positioned in the working area at the operator's eye level.

Section 6. Test Methods and Procedures.
Except as provided in 401 KAR 50:045, performance tests used to demonstrate compliance with Sections 3, 4 and 5 shall be conducted according to the following methods, filed by reference in 401 KAR 50:015:

(1) Reference Method 11 for Hydrogen Sulfide. The sample shall be drawn from a point near the centroid of the gas line. The minimum sampling time shall be ten (10) minutes and the minimum sample volume shall be 0.01 dscm (0.35 dscf) for each sample. The arithmetic average of two (2) samples shall constitute one (1) run. Samples shall be taken at approximately one (1) hour intervals.

(2) Reference Method 6 for Sulfur Dioxide. Reference Method 1 shall be used for velocity traverses and Reference Method 2 for determining velocity and volumetric flow rate. The sampling site for determining sulfur dioxide concentration by Reference Method 6 shall be the same as for determining volumetric flow rate by Reference Method 2. The sampling point in the duct for determining sulfur dioxide concentration Reference Method 6 shall be at the centroid of the cross section or at a point no closer to the walls than one (1) m (thirty-nine (39) inches) if the cross=sectional area is five (5) square meters or more and the centroid is more than one (1) meter from the wall. The minimum sampling time shall be ten (10) minutes and the minimum sampling volume shall be 0.01 dscm (0.35 dscf) for each sample. The arithmetic average of two (2) samples shall constitute one (1) run. Three (3) runs will constitute compliance test. Samples shall be taken at approximately one (1) hour intervals.

Effective date: June 6, 1979

	Date Submitted to EPA	Date Approved by EPA	Federal Register
Original Reg	JUN 29, 1979	JAN 25, 1980	45 FR 6092
		JUL 12, 1982	47 FR 30059
1st Revision	APR 07, 1982	MAR 22, 1993	48 FR 11945